

Partial Translation  
of

Japanese Patent Laid-Open Publication No. 190200/  
1987

Application No. : 30624/1986

**B20**

Application Date: February 17, 1986

Date of Laid Open: August 20, 1987

Applicant: Shin Gijutsu Kaihatsu Jigyodan

Jiro Tsubouchi

Mutsumi Kayama

Hidemi Ishii

Denichi Mizuno

The applicant name was transliterated from the Japanese Katakana, so are not sure about the accuracy.

Partial Translation

Claims: (1) A protein complex obtained by covalently conjugating an immunoglobulin or a fragment thereof to a rabbit tumor necrosis factor.

Means for Solving the Problem

To achieve the problems as described above, in this invention, an immunoglobulin having the affinity to a tumor tissue or a fragment thereof is covalently conjugated to TNF. The resultant protein complex keeps the cell killing activity of the TNF as well as the antigen-bonding activity of the immunoglobulin.

In this invention, the immunoglobulin having the affinity to a tumor tissue indicates an immunoglobulin conjugating to a tumor-related antigen or a cancer fatal antigen, or an immunoglobulin conjugating to a fibrin accumulated in a tissue antigen or a tumor tissue. Of these, the tumor-related antigen or cancer fatal antigen has the selectivity for tumor, but quantity in the tumor tissue is extremely small. In contrast, the tissue antigen or fibrin has the low selectivity for tumors, but has the advantage in a tumor tissue is quite large.

As the TNF itself has the selectivity for tumors to some extent, it is desirable to use an immunoglobulin for a tissue antigen or fibrin.